

LAKE: PATTEE P (VLMP 11)
 TOWN: WINSLOW
 COUNTY: KENNEBEC

MIDAS: 5458
 TRUE BASIN: 1
 SAMPLE STATION: 1

WHOLE LAKE INFORMATION

MAX. DEPTH: 8 m. (27 ft.)

MEAN DEPTH: 5 m. (15 ft.)

DELOREME ATLAS #: 21

USGS QUAD: FAIRFIELD

IFW REGION B: Belgrade Lakes (Augusta)

IFW FISH. MANAGMENT: Warmwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 202.0 ha. (499.1 a.)

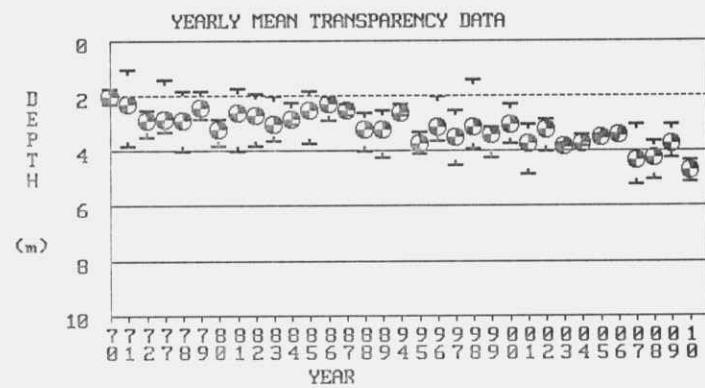
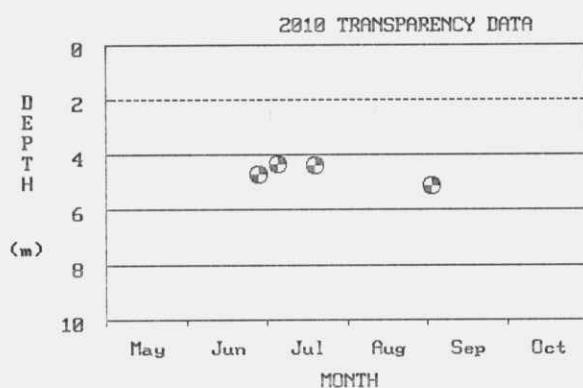
FLUSHING RATE: 2.13 flushes/yr.

VOLUME: 8927903.3 cu. m. (7242 ac.-ft.)

DIRECT DRAINAGE AREA: 32.58 sq. km. (12.58 sq. mi.)

PLEASE NOTE THE FOLLOWING: The SAMPLE STATION # refers to the location sampled. The term TRUE BASIN is used to define areas within a lake that are separated by shallow reefs or shoals and therefore function as separate lakes. There are approximately 50 lakes in the state that have more than 1 True Basin. True Basin Characteristics are now being included in the first section of these reports to enable users of the Phosphorous Loading Methodology to better evaluate the data. If there is no data for a particular True Basin, True Basin Characteristics must be obtained from the DEP. PATTEE P has 1 True Basin(s).

SECCHI DISK TRANSPARENCY GRAPHS:



Note: 2010 graphs may indicate multiple readings taken on a given day.

SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

[* indicates that Secchi disk was visible at bottom of lake (or one reading used in calculation was visible)].

YEAR	MEAN COLOR (SPU)	MEAN pH	MEAN ALK (mg/l)	MEAN COND. (μS)	TOTAL PHOS. (ppb)	MEANS (ppb)	SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPHIC STATE INDICES							
							CORE	GRAB	GRAB	GRAB	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C			
							/cm											G	SEC	CHL	
1970	-	-	-	-	-	-	-	-	-	-	1.7	2.0	2.3	3	-	-	-	-	-	-	
1971	-	-	-	-	-	-	-	-	-	-	1.0	2.3	3.8	4	-	-	-	-	-	-	
1972	-	-	-	-	-	-	-	-	15	-	2.5	2.9	3.5	5	-	-	-	-	-	-	
1977	-	-	-	-	-	12	-	-	-	-	1.4	2.8	3.3	3	-	-	-	-	-	-	
1978	-	-	-	-	-	21	-	-	-	-	1.8	2.9	4.0	2	14.3	14.3	14.3	-	-	-	
1979	40	7.00	29.0	75	19	-	-	-	-	-	1.8	2.4	2.8	4	13.4	13.4	13.4	-	-	-	
1980	-	-	-	-	-	-	-	-	-	-	2.8	3.2	3.8	3	-	-	-	-	-	-	
1981	-	7.00	-	-	17	-	-	-	17	1.7	2.6	4.0	7	4.2	8.6	20.2	-	-	-	68	
1982	-	-	-	-	-	-	-	-	-	26	1.9	2.7	3.8	6	4.3	10.8	20.5	-	-	-	74
1983	-	-	-	-	-	-	-	-	-	-	2.0	3.0	3.6	5	-	-	-	-	-	-	
1984	42	7.20	20.0	-	18	-	-	15	-	-	2.2	2.8	3.0	4	12.4	12.6	12.7	-	-	-	
1985	30	7.50	19.0	68	19	-	-	-	-	-	1.8	2.5	3.7	5	5.6	13.0	18.7	-	-	-	80
1986	50	7.20	23.0	74	24	-	-	33	-	-	2.0	2.3	2.9	6	6.0	13.5	21.2	-	-	-	81
1987	40	7.21	28.0	84	20	-	-	23	-	-	2.3	2.5	2.7	5	8.6	11.6	20.5	-	-	-	76
1988	30	-	22.0	-	19	-	-	-	-	-	2.6	3.2	4.0	6	2.6	6.6	11.1	-	-	-	60

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YEAR	MEAN	MEAN	MEAN	MEAN	COND. TOTAL PHOS. MEANS (ppb)						SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPHIC STATE INDICES						
	COLOR	pH	ALK	(mg/l)	uS	EPI	SURF	BOT.	PRO.	CORE	GRAB	GRAB	GRAB	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
	(SPU)				/cm)																			
1989	47	7.40	28.0	75	16	-	21	-	2.5	3.2	4.2	5	3.6	7.5	12.3	-	-	-	-	-	-	-	64	
1994	-	-	23.6	-	26	-	-	-	2.3	2.6	2.7	1	13.3	13.3	13.3	-	-	-	-	-	-	-	-	
1995	-	-	-	-	-	-	-	-	3.3	3.7	4.1	3	-	-	-	-	-	-	-	-	-	-	-	
1996	-	-	-	-	-	-	-	-	2.0	3.1	3.6	4	-	-	-	-	-	-	-	-	-	-	-	
1997	-	-	-	-	-	-	-	-	2.5	3.5	4.5	5	-	-	-	-	-	-	-	-	-	-	-	
1998	40	-	27.5	85	18	-	28	-	1.4	3.1	3.9	5	15.0	15.5	16.0	-	-	-	-	-	-	-	-	
1999	-	-	-	-	-	-	-	-	3.1	3.4	4.2	6	-	-	-	-	-	-	-	-	-	-	-	
2000	41	-	26.0	81	19	-	15	-	2.3	3.0	3.7	4	6.6	8.2	9.9	-	-	-	-	-	-	-	-	
2001	-	-	-	-	-	-	-	-	3.0	3.7	4.8	5	-	-	-	-	-	-	-	-	-	-	-	
2002	36	-	27.0	93	9	-	-	-	2.8	3.2	4.0	3	6.8	7.8	8.7	-	-	-	-	-	-	-	-	
2003	45	-	24.0	94	18	-	-	-	3.7	3.8	3.8	2	7.3	7.3	7.3	-	-	-	-	-	-	-	-	
2004	-	-	-	-	-	-	-	-	3.4	3.7	3.8	2	-	-	-	-	-	-	-	-	-	-	-	
2005	-	-	-	-	-	-	-	-	3.4	3.5	3.5	2	-	-	-	-	-	-	-	-	-	-	-	
2006	-	-	-	-	-	-	-	-	3.4	3.4	3.4	1	-	-	-	-	-	-	-	-	-	-	-	
2007	21	7.63	25.2	76	-	13	-	-	3.0	4.3	5.2	5	-	-	-	-	-	-	-	-	-	-	-	
2008	-	-	-	-	-	-	-	-	3.6	4.2	5.0	4	-	-	-	-	-	-	-	-	-	-	-	
2009	-	-	-	-	-	-	-	-	3.0	3.7	4.2	4	-	-	-	-	-	-	-	-	-	-	-	
2010	-	-	-	-	-	12	-	-	4.3	4.7	5.1	3	5.5	5.5	5.5	-	-	-	-	-	-	-	-	
SUMMARY:	38	7.22	24.8	80	18	17	21	21	1.0	3.1	5.2	33	2.6	10.6	21.2	-	-	-	-	-	-	-	72	

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH	SAMPLE DATE															
	09/20/88	08/29/89	09/28/89	08/24/94	08/26/98	08/24/00	08/29/02	09/02/10								
0.0	18.4	9.5	21.0	8.2	16.2	9.3	-	24.0	9.4	22.8	8.0	22.9	7.6	25.4	8.3	
1.0	18.2	9.4	20.9	8.1	16.2	9.3	18.0	8.9	24.0	9.4	22.7	7.9	22.9	7.6	25.4	8.2
2.0	18.1	9.4	20.9	8.2	16.2	9.3	17.8	9.0	23.5	9.1	22.0	7.3	22.9	7.6	24.5	8.4
3.0	17.5	9.0	20.9	8.1	16.2	9.3	17.0	9.0	23.0	8.5	21.9	7.3	22.9	7.6	23.1	8.4
4.0	17.3	8.9	20.8	8.0	16.1	9.3	16.3	9.0	22.0	7.0	21.9	7.2	22.7	6.4	22.0	8.0
5.0	17.3	8.6	20.0	5.2	16.1	9.3	15.9	9.0	21.5	3.2	21.7	7.1	22.2	4.6	21.3	5.9
6.0	17.3	8.5	17.3	0.7	16.1	9.3	15.0	8.5	20.0	0.3	21.5	6.6	21.4	2.6	20.8	4.1
7.0	17.2	8.3	15.2	0.4	16.1	8.8	-	-	18.0	0.2	20.9	3.2	-	-	20.1	1.9
8.0	-	-	-	-	-	-	-	-	-	-	18.9	0.7	-	-	-	-

Quality = 24; 4.0

WATER QUALITY SUMMARY

PATTEE POND, WINSLOW

MIDAS: 5458, Sample Station # 1

The Maine Department of Environmental Protection (ME-DEP) and the Volunteer Lake Monitoring Program (VLMP) have collaborated in the collection of lake data to evaluate water quality, track algal blooms, and determine water quality trends. This dataset does not include bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring data for Pattee Pond have been collected since 1970. During that period, 17 years of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Pattee Pond is considered below average based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Pattee Pond is moderate.

Water Quality Measures: Pattee Pond is a colored lake (average color 38 SPU) with an average SDT of 3.1 m (10.2 ft). The high color may slightly reduce the potential for elevated phosphorus to produce algae blooms. The range of water column TP for Pattee Pond is 12 - 26 parts per billion (ppb) with an average of 18 ppb. Chla ranges from 2.6 - 21.2 ppb with an average of 10.9 ppb. Recent dissolved oxygen (DO) profiles show moderate DO depletion in deep areas of the lake. The potential for TP to leave the bottom sediments and become available to algae in the water column (internal loading) is moderate.

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at <http://www.lakesofmaine.org/> and/or <http://www.maine.gov/dep/blwq/lake.htm>, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

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